REMARKS

This is in response to the Office Action of February 7, 2011. With this amendment, claims 1 and 22 are amended, and all pending claims 1-11, 23-20, 22 and 24-25 are presented for reconsideration and favorable action.

In response to the Office Action of the USPTO dated February 7, 2011, the typographical error in claim 22 mentioned under item 2 of the Office Action has been corrected.

Additionally, in view of the new prior art documents Petrak and Flynn cited by the Examiner, Applicant submits that at present, currently pending independent claims 1 and 22 should only be clarified slightly. Attached, please find amended claims 1 and 22.

Amended claim 1 has been amended by clarifying that the setting device comprises an axial advancing support for the hollow shaft.

Likewise, claim 22 has been amended by specifying that the motor vehicle parking brake has the feature of an axially advancing support for the hollow shaft.

Amended claims 1 and 22 are based on claims 1 and 22 as presently on file, respectively, as well as on paragraph [0023], in particular lines 3 and 4, paragraph [0031], lines 7 to 10, paragraph [0032], in particular lines 7 to 9, and paragraph [0037], lines 1 to 5, of the original description, the numbering of paragraphs being the one used in the U.S. publication, and on original figures 3, 5, 7, 9,15 and 17.

Paragraph [0031] discloses the spindle shaft 3 to be able to move within the elastic element 6. Paragraph [0032] explains the way the hollow shaft 2 comes into contact with the elastic element 6 and compresses the latter during an attempt to release the brake, the elastic element 6 thus acting as an axial advancing support for the hollow shaft, as shown in the corresponding figure 9. Also paragraph [0037] refers to the brake release procedure and, in connection with figure 17, shows the elastic element 5 to provide axial support for the hollow shaft 2.

According to amended claim 1, the setting device of the present invention comprises a hollow shaft, a spindle shaft and an axial advancing support. The hollow shaft and the spindle shaft form parts of a telescopic device and are connected in such a manner that the hollow shaft is enabled to rotate, while the spindle shaft can experience advancing movement relative to a

remotely-operated drive. Through this advancing movement of the spindle shaft, a brake cable is actuated. According to amended claim 1, a connection further is provided which, on the one hand, enables the transmission of a torque from the remotely-operated drive to the hollow shaft for actuating the brake cable, and which, on the other hand, provides the hollow shaft with the ability to axially move in relation to the remotely-operated drive. A further feature of the setting device according to amended claim 1 of the present invention is at least one elastic element which acts as an axial advancing support for the hollow shaft between the hollow shaft and a housing.

During operation of the device according to the invention, the hollow shaft thus is advanced axially when the brake cable is actuated by rotating the hollow shaft of the telescopic device and thereby imparting advancing movement to the spindle shaft. Axial support for the hollow shaft against such advancing movement is provided through the elastic element.

The device disclosed in document Petrak (US 2003/0075001 Al) cited by the Examiner is a tool for tensioning a park brake cable (paragraphs [0003], [0007]). One example of this tool, to which the Examiner makes reference, is depicted in Figures 31, 34, 35 and 36 of document Petrak. On an input shaft 1522, which is rotatable within a housing 1512 (paragraph [0164], lines 1 to 5), a backing block 1582 is arranged such that the backing block 1582 rotates with the shaft 1522 (paragraph [0170], the last two lines). Further, the device comprises a piston 1546 with a flange 1548. To the flange 1548, a clamp plate 1580 is fastened by means of screws 1578 (paragraph [0170], Figures 31, 34, 35, 36). Rotation of the backing block 1582 with respect to the clamp plate 1580 and the flange 1548 is ensured by a thrust roller bearing 1584 that is arranged between the clamp plate 1580 and the backing block 1582 (paragraph [0173], lines 4 to 8). As shown in Figs. 31 and 39B of Petrak, an arm 1598 of the clamp plate 1580 is received in a notch 1600, the clamp plate 1580, piston flange 1548 and piston 1546 thus being prevented from rotation.

As is further described in paragraph [0171] of document Petrak, the device disclosed in this document also comprises a compression spring 1596. This compression spring 1596 is used for biasing the piston 1546 into an extended position (the position of Fig. 31). The compression

spring 1596, however, is not provided with a function of axially supporting the input shaft 1522 against advancing, as the spring 1596 only acts on the clamp plate 1580. In the device of Petrak, the input shaft 1522 obviously can move to the right (in Figs. 31, 34, 35, 36) until the backing plate 1582 abuts against the crow's foot, without being supported by the spring 1596. The backing plate 1582 and thus the shaft 1522 are pushed by the piston 1546 via the thrust roller bearing under the action of a hydraulic fluid (in chamber 1554) acting on the piston ([0179], [0180]). Thus, there is also no support of the shaft 1522 against advancing towards the left (in Figs. 31, 34, 35, 36) by an elastic element, but backward movement to the left is prevented by the rigid flange maintained in its position by the use of pressurized hydraulic fluid.

Concerning the spring 1618, this element of Petrak's device is provided to ensure that the anti-rotation sleeve 1606 stays on the keyed end of rod 1510. As can be appreciated by observing Fig. 36 in particular, the spring 1618 has no function of supporting the shaft 1522 against advancing when the shaft 1522 is rotated in order to perform the tensioning operation.

Thus, the device described in document Petrak at least lacks the feature of an axial advancing support for the hollow shaft between the hollow shaft and the housing via at least one elastic element, as specified in amended claim 1.

The foregoing rationale can apply in like manner to the subject-matter of amended claim 22. Document Petrak does not disclose a motor vehicle parking brake having an axial advancing support for a hollow shaft as specified in amended claim 22. In this respect, it is to be noted again that the apparatus described in Petrak differs from the subject-matter of claim 22 also in that Petrak's device is a tool for use in tensioning a park brake cable system (see paragraphs [0003] and [0007], as well as claim 12, for example, and also paragraph [0163], first line).

Hence, the subject-matters of amended claims 1 and 22 are new with regard to document Petrak. Document Flynn et al. (US 2003/0066714 Al) neither discloses a setting device nor a motor vehicle parking brake comprising a spindle shaft enabled to undergo axial movement relative to the electric motor 22.

The subject-matters of both amended claims 1 and 22 are therefore new with regard to document Flynn et al. as well.

The setting device according to amended claim 1 and the motor vehicle parking brake according to amended claim 22 are therefore new in the sense of 35 USC § 102.

The technical problem a person skilled in the art and being aware of document Petrak had to solve may be considered to be to provide a more compact setting device of simpler design, suitable for actuating and releasing a brake cable, which allows to apply and to correctly measure a brake cable force regardless of the distance the brake cable has travelled. Reference can also be made to paragraph [0004] of the original description with regard to the technical problem to be solved.

This problem is solved by a device according to new independent claim 1 of the present invention. From the remotely-operated drive, a torque is transmitted to the hollow shaft for actuating the brake cable. Tensioning the cable is achieved by the advancing motion of the spindle shaft. Additionally, the connection by which torque is transmitted also provides the hollow shaft with the ability of axial movement. Axial forces applied to the spindle shaft during the tensioning process also act on the hollow shaft. Therefore, the hollow shaft is supported against axially advancing movement. As this support is accomplished via at least one elastic element, a certain axial force applied to the brake cable will lead to a defined displacement of the hollow shaft, which can be evaluated in a simple manner and used for measuring the cable tension.

Such a support of a hollow shaft against advancing axially is neither disclosed nor suggested by document Petrak. Instead, Petrak discloses supporting the input shaft 1522 against the axial load, induced by tensioning a cable through rotation of the nut 1508, in hydraulic manner by means of filling the chamber 1554 with hydraulic fluid (see, for example, paragraphs [0179], [0180] and also [0214] of Petrak). A measurement of the cable tension can then be performed by measuring hydraulic fluid pressure (paragraph [0223]), but this requires a lot of components and a lot of space.

The person having ordinary skill in the art could not obtain any useful hint from document Petrak with regard to providing an axial advancing support for the hollow shaft via at least one elastic element, but is led towards a rather complicated axial support by hydraulic means instead.

Starting from document Petrak, document Flynn could not lead the skilled person to the subject-matter of claim 1. As shown in Fig. 8 of Flynn, for example, a cable 74 under tension compresses a biasing member 83 via a retaining member 85. Hints with regard to axially supporting a hollow shaft by means of an elastic element cannot be obtained from Flynn.

The preceding rationale can apply to both amended claims 1 and 22 in like manner.

Hence, amended claims 1 and 22 fulfill the non-obviousness requirement of 35 USC § 103 and therefore should be patentable.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue, or comment, including the Office Action's characterizations of the art, does not signify agreement with or concession of that rejection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment or cancellation of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment or cancellation. Applicant reserves the right to prosecute the rejection claims in further prosecution of this or related applications.

In view of the above amendments and remarks, it is believed that the present application is in condition for allowance. Consideration and favorable action are respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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